

Application No. 10/665,532
Reply to Office Action dated March 18, 2008

Docket No.: 1381-0302P

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) An elevator comprising a hoisting rope set having hoisting ropes of a substantially round cross-section, a counterweight and an elevator car suspended from the hoisting ropes and at least one rope pulley provided with rope grooves having a predetermined depth and a cross section having an upper portion with a predetermined radius of curvature and a lower portion with a different radius of curvature, the at least one rope pulley being a traction sheave coated with a layer of material increasing the coefficient of friction, the coating layer being located in the upper portion of the grooves with the predetermined radius of curvature to form an auxiliary grooving space without a coating between a bottom of the coating layer and the lower portion of the groove with the different radius of curvature, said traction sheave being driven by a drive machine to move the hoisting rope set, wherein in the auxiliary grooving space and the shape of the auxiliary grooving space provide an increased coefficient of friction between the hoisting rope and the rope grooves relative to that provided by a pulley groove without the predetermined shape of the auxiliary grooving ~~at least the traction sheave forms together with the hoisting rope set a material pair made of different materials that~~ allows the hoisting rope to bite into the traction sheave after the coating on the surface of the traction sheave has been lost wherein the elevator is usable when the coating on the surface of the traction sheave has been lost.

2. (Previously Presented) The elevator as defined in claim 1, wherein the coating of the at least one rope pulley is made of rubber, polyurethane or other elastic material.

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3. (Previously Presented) The elevator as defined in claim 1 or 2, wherein the hoisting ropes used are ropes having a diameter of less than 8 mm.
4. (Previously Presented) The elevator as defined in claim 1, wherein the hoisting ropes contain a load-bearing part twisted from steel wires.
5. (Cancelled)
6. (Currently Amended) A traction sheave for steel wire ropes, and the traction sheave comprising rope grooves having a relatively large width and depth upper portion and a lower and smaller width and shallower depth auxiliary groove portion which extends beneath the large upper portion, for hoisting ropes on an outer rim thereof, and a coating layer for increasing friction against the hoisting ropes, the coating layer being located in the upper portion of the grooves but not in the auxiliary groove portion the, wherein the material used in the traction sheave in the auxiliary groove portion and the shape of the auxiliary groove portion, at least under the coating on the outer rim of the traction sheave, is a material that allows provide an increased coefficient of friction between the hoisting rope and the rope grooves relative relative to that provided by a pully groove without the predetermined shape of the auxiliary groove portion the hoisting rope to bite into the material, the coating and the material under the coating being different materials wherein the elevator is usable when the coating has been lost.

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7. (Withdrawn) The traction sheave as defined in claim 6, wherein the material of the traction sheave includes a portion made of one of soft steel, aluminum, cast iron and brass.
8. (Currently Amended) The traction sheave as defined in claim 6, wherein the auxiliary groove portion has a shape ~~sheave has at the bottom of the rope grooves of the traction sheave a groove~~ allowing the hoisting rope to bite thereinto the groove.
9. (Currently Amended) The traction sheave as defined in claim 8, wherein the auxiliary groove portion ~~provided under the coating in the rope groove~~ is one of an undercut groove and a V-shaped groove.
10. (Currently Amended) The traction sheave as defined in claim 6, ~~wherein the material comprises~~ further comprising an insert in at least one of the rope grooves allowing the hoisting rope to bite into the insert, ~~said insert being implanted under the coating on the traction sheave~~, the insert maintaining a grip between the traction sheave and the hoisting rope when the coating is removed.
11. (Withdrawn) The traction sheave as defined in claim 1, wherein the sheave has under the coating in the rope groove on the outer rim of the traction sheave a roughened area for maintaining a grip between the hoisting rope and the traction sheave.

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12. (Previously Presented) The elevator as defined in claim 3, wherein the diameter of the ropes is 3-5 mm.

13. (Currently Amended) A traction sheave for steel wire ropes and the traction sheave comprising rope grooves having a predetermined depth and a cross section having an upper portion, and a lower portion with a predetermined radius of curvature, for hoisting ropes on an outer rim thereof and a coating increasing friction against the hoisting ropes, the coating layer being located in the upper portion of the grooves to form an auxiliary grooving space without a coating between a bottom of the coating layer and the lower portion of the groove with the predetermined radius of curvature, wherein the material used in the traction sheave in the auxiliary grooving space and the shape of the auxiliary grooving space provide an increased coefficient of friction between the hoisting rope and the rope grooves relative relative to that provided by a pulley groove without the predetermined shape of the auxiliary grooving, ~~at least under the coating on the outer rim of the traction sheave, is a material that allows the hoisting rope to bite into the material, wherein the traction sheave and hoisting ropes are made of different materials wherein the elevator is usable~~ when the coating has been lost.

14. (Canceled)